

U.S. Patent Application Serial No. 09/901,044
Response dated November 6, 2003
Reply to OA of August 1, 2003

REMARKS

Claims 1-26 and 28 are pending in this application. Claim 27 has been canceled.

Claim 1 has been amended. The applicants respectfully submit that no new matter has been added.

The support for the amendment to claim 1 is, for example, on p.13, lines 5-9; FIGS 4, 5, 8 and 10.

Claims 1, 7-12, 18, 19, 21, 22 and 27 are rejected under 35 USC 102 as being anticipated by **Carpenter `164**. **Carpenter `164** is limited to blasting or cleaning equipment as described in col.2, lines 5-12. FIGS. 2 and 8 of **Carpenter `164** show the blast pattern 14 of the throwing wheel 12 which is located inside the work piece treating barrel 10.

In contrast, in the invention as claimed in claim 1 and claims dependent thereon, the surface-treating material supply section is provided outside of the tubular barrel(s) and both the barrel(s) and the surface-treating material supply section are located in a treating chamber. These structural differences alone foreclose anticipation by **Carpenter `164**. Nowhere in **Carpenter `164** is there disclosed a throwing wheel outside the barrel nor a treating chamber. (See col. 3, lines 50-59 which explain that the blast pattern 14 is inside the barrel.)

Claim 21 recites that the dry surface treating apparatus is a deposition apparatus. Nowhere in **Carpenter `164** is there described a deposition apparatus. In fact, **Carpenter `164** is limited to blasting or cleaning equipment as described in col.2, lines 5-12 and claim 1, "An abrasive

U.S. Patent Application Serial No. 09/901,044
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blast-resistant barrel for use in blast treatment of workpieces such as metal castings and the like”.

The invention, as now claimed, is clearly not anticipated by **Carpenter `164**.

Claims 2-6, 13-17 and 28 are rejected under 35 USC 103 as being obvious over **Carpenter `164** alone. As a threshold matter, for the claims to logically be obvious over **Carpenter `164** alone, the reference would have to suggest, to the art skilled person, locating the throwing wheel **12** outside of the barrel **10** and the existence of the treating chamber structure. There is no suggestion of such a structure. Since the claims ultimately depend from claim 1 and **Carpenter `164** does not, as a threshold matter, suggest a structure with the throwing wheel **12** outside of the barrel **10**, then any conclusion of obvious based on **Carpenter `164** alone, without more, must fail.

Claims 3-6 relate to the shape of the tubular barrel and claims 13-17 and 28 relate to partitions in the tubular barrel. However they are all dependent from claim 1 reciting a structure where the surface-treating material supply section is outside of the barrel. **Carpenter `164** does not at all suggest adapting the structure in the reference to a different arrangement. As a result, dependent claims 2-6, 13-17 and 28 would not logically be obvious in light of the reference.

Claim 20 is rejected under 35 USC 103 as being obvious over **Carpenter `164** in view of **Steube `161**.

U.S. Patent Application Serial No. 09/901,044
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Claim 20 is directed toward the structure illustrated, for example, in FIG. 6 which is completely different from **Steube '161** which discloses counter rotating open mesh barrels **28** and **30** (col.4, line 16) which tilt by rotation of handle **32**, so that work pieces **14** tumble out into output chutes **34** and **36** (col. 4, lines 22-24). **Steube '161** discloses two barrels that slightly tilt. **Carpenter '164** discloses only a single barrel. If the references were combinable, their combination would certainly not suggest all possible multiple barrel combinations and would not suggest claim 20, which recites a very different structure. The number of barrels, the rotation pattern, and the support structure as claimed in claim 20 are not suggested by the combination of the references.

Moreover, the applicants assert that the references are not properly combinable if there is no motivation to combine and by their combination the intended function of one or both of the references would be destroyed. Because **Carpenter '164** is limited to blasting or cleaning equipment as described in col.2, lines 5-12 and **Steube '161** is limited mass ion vapor deposition of plating material, col.2, lines 45-48, there is no motivation to combine the references. For example, there is no logical reason to have a throwing wheel **12** in the barrel **10** if you are performing vapor deposition. Similarly the structure of FIGS. 1 and 2 of **Steube '161** is unnecessary for a blasting and cleaning operation.

The applicants assert that while both references disclose porous peripheral surfaces, there is no logical reason to combine the references.

U.S. Patent Application Serial No. 09/901,044
Response dated November 6, 2003
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Claims 1-21 and 23-28 are rejected under 35 USC 103 over **Steube `161** in view of **Pletscher `003**. As a threshold matter, **Pletscher `003** is directed toward abrasive cleaning in an enclosed tubular barrel which contains a mass of smooth-surface particles which contact the work piece (col. 1, lines 14-16). **Steube `161** on the other hand discloses a porous peripheral surface barrel for vapor deposition. The references are directed toward entirely different treatment methods. Since abrasive cleaning and vapor deposition are completely different, the references lack motivation for their combination much less any suggestion of the structure of claim 1 and claims dependent thereon.

Claim 22 is rejected under 35 USC 103 over **Steube `161** in view of **Pletscher `003** further in view of **Kanouse `677**. **Kanouse `677** fails to supply the suggestion or motivation to combine **Steube `161** with **Pletscher `003** and therefore the rejection fails because the primary references are not logically combinable. **Kanouse `677** discloses a blast mill but does not provide any motivation for combining the closed tube of **Pletscher `003** with the vapor deposition apparatus of **Steube `161**.

The prior art has consistently treated cleaning and vapor deposition separately. Any suggestion of combination is hindsight because there is nothing in the cited references to suggest that the two can be combined. The applicants therefore assert that the invention as now claimed is neither anticipated or obvious.

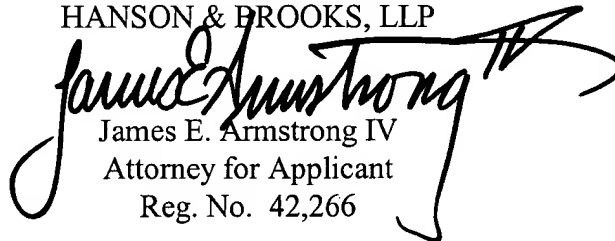
U.S. Patent Application Serial No. 09/901,044
Response dated November 6, 2003
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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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